

# Supermassive Black Holes: What Quasars Really Are

1

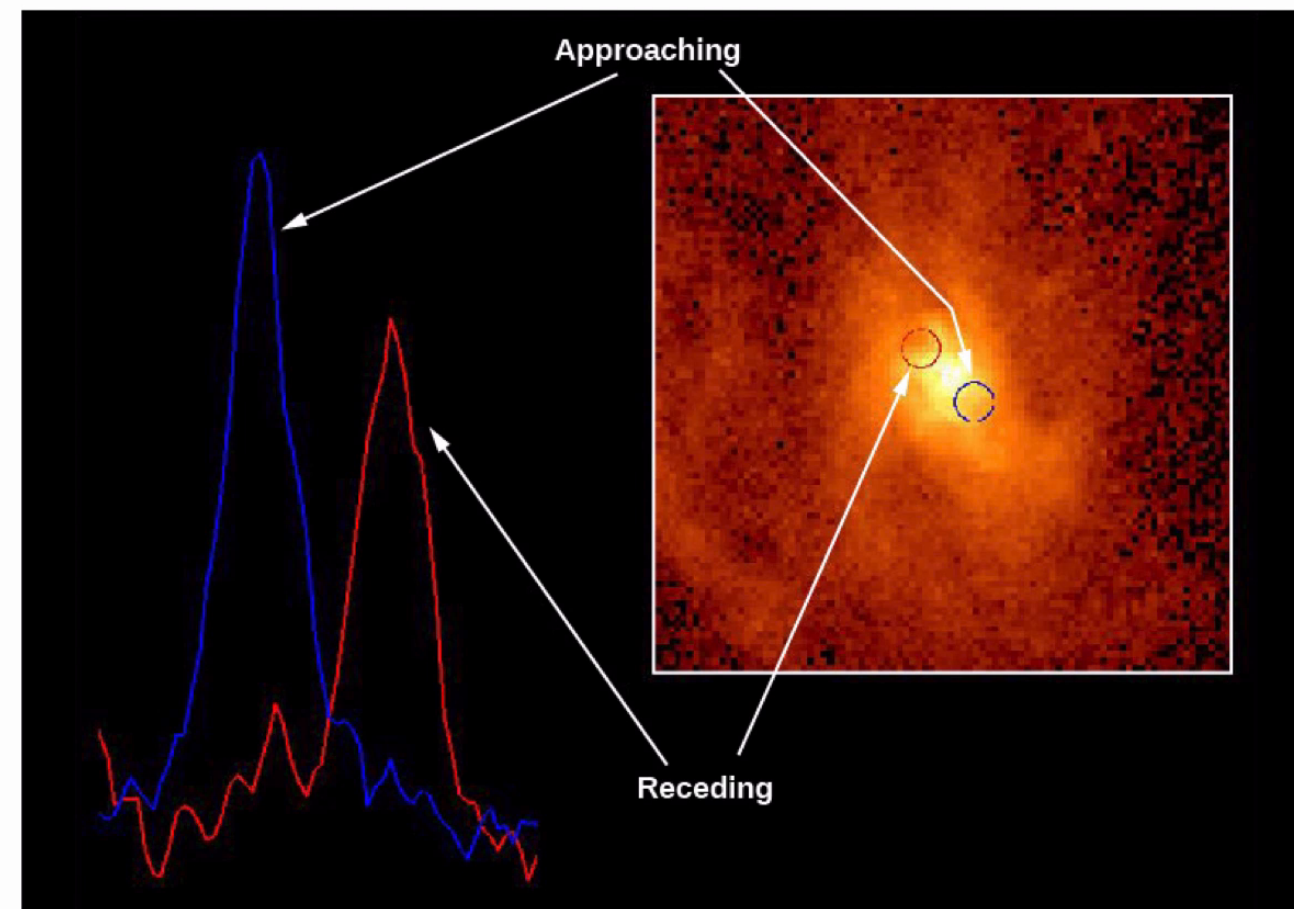
Every quasar is in fact a supermassive black hole surrounded by an energy-emitting accretion disk



Artist's impression of a supermassive black hole surrounded by an accretion disk

2

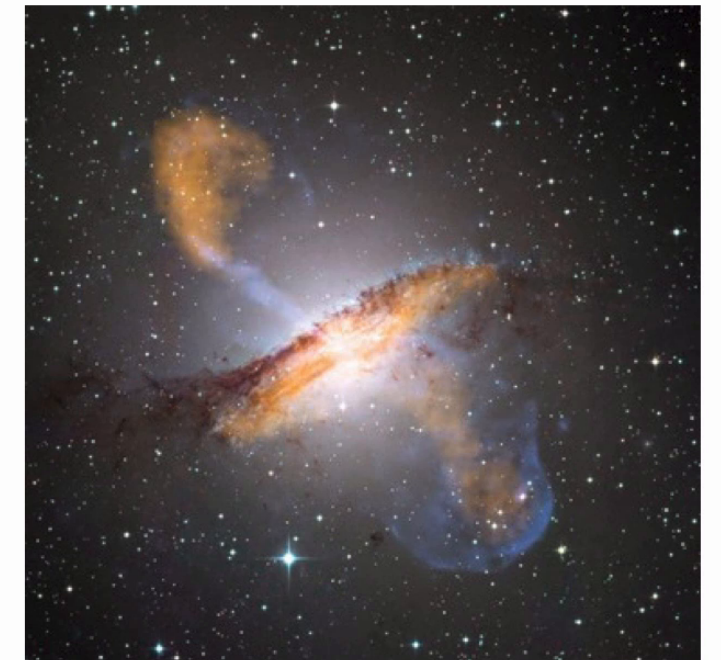
Observations of blue- and redshifted material near the black hole reveals the rotation of material in the accretion disk



Hubble Space Telescope image of the heart of the M87 galaxy

3

Jets launched by the accretion disk are often revealed in radio observations



Optical/radio image of Centaurus A

4

Gamma-ray images of our own Milky Way reveal bubbles blown when our own supermassive black hole was “active”

